

REMARKS

Claims 1-51 are pending in the application. Please amend Claims 1, 6, 13, 18, 19, 26, 31, 38, 43, 44, and 51. Applicants respectfully request entry of the foregoing amendments to Claims 1, 6, 13, 18, 19, 26, 31, 38, 43, 44, and 51 prior to further examination. No new matter has been introduced.

Support for Claim Amendments

Each of Claims 1, 6, 13, 18, 19, 26, 31, 38, 43, 44, and 51 have been amended to further define the fringe field as being “an intrinsic fringe field”. Support for these claim amendments can be found in the specification on page 8, lines 24-25.

Regarding Section 102 Rejections

Claims 1 and 12 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Kwon et al. (U.S. Patent Application No. 2002/0047971; hereinafter “Kwon”).

The present invention utilizes an intrinsic fringe field of associated each pixel to create a multiple-vertical-alignment (MVA) liquid crystal display (LCD). The intrinsic fringe field exists by applying an electric field between the first and second substrates. As such, the initial vertical orientation (Fig. 2B) is switched to a tilted orientation (Fig. 2C). The liquid crystal (LC) tilt direction is controlled by the intrinsic fringe field direction associated with each pixel. That is, across each pixel, the intrinsic fringe field direction changes in the opposite direction, thus the LC tilt angle changes direction across each pixel and creates multiple LC domains, separated by a LC domain wall with a vertical orientation as shown in Fig. 4.

Kwon provides a multi-domain liquid crystal display using a split-pattern pixel to create an induced fringe field. That is, the split-pixel distorts the electric field thereby creating the induced fringe field. The induced fringe field is not the intrinsic fringe field associated with each pixel.

Kwon does not teach, suggest, or otherwise make obvious an “intrinsic fringe field in each pixel being substantially used to control the liquid crystal tilt direction to create the multi-domain vertical alignment display” as claimed in amended Claim 1 because Kwon creates an

induced fringe field using a split-pattern pixel. Therefore, Kwon does not anticipate amended Claim 1 of the present invention. Applicant respectfully requests the withdraw of the rejection of amended Claim 1 under 35 U.S.C. § 102.

Claim 12 is dependent on amended Claim 1 and is allowable for the same reasons. Applicant respectfully requests the withdraw of the rejection of Claim 12 under 35 U.S.C. § 102.

Regarding Section 103 Rejections

Claims 13 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon.

Claim 13 has been amended to include similar limitations as claimed in amended Claim 1, namely “an intrinsic fringe field” and is allowable for the same reasons. Claim 25 depends from Claim 13 and is allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of amended Claim 13 and Claim 25 under 35 U.S.C. § 103.

Claims 26-30, 37-42, 50 and 51 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon in view of Yamaguchi.

Claims 26, 38, and 51 have been amended to include similar limitations as claimed in amended Claim 1, namely “an intrinsic fringe field” and are allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of amended Claims 26, 38, and 51 under 35 U.S.C. § 103.

Claims 27-30 and 37 depend from amended Claim 26 and Claims 39-42 and 50 depend from amended Claim 38 and are allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of Claims 27-30, 37, 39-42, and 50 under 35 U.S.C. § 103.

Claims 2-5 and 14-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon in view of Yamaguchi et al. (U.S. Patent Application No. 2002/0080312; hereinafter “Yamaguchi”).

As noted above, Kwon does not teach using “an intrinsic fringe field.” Claims 2-5 and 14-17 depend from allowable amended base Claims 1 and 13, respectively, and are allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of Claims 2-5 and 14-17 under 35 U.S.C. § 103.

Claims 6-8, 18-21, 31-33 and 43-46 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon in view of Yamaguchi and further in view of Wu et al. (U.S. Patent Application No. 2002/0093618; hereinafter "Wu").

As noted above, Kwon does not teach using "an intrinsic fringe field." Claims 6-8, 18-21, 31-33 and 43-46 depend from allowable amended base Claims 1, 13, 26, and 38, respectively, and are allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of Claims 6-8, 18-21, 31-33 and 43-46 under 35 U.S.C. § 103.

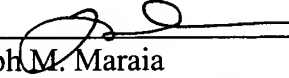
Claims 9-11, 22-24, 34-36 and 47-49 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon in view of Yamaguchi and further in view of Arakawa (U.S. Patent No. 5,528,400).

As noted above, Kwon does not teach using "an intrinsic fringe field." Claims 9-11, 22-24, 34-36 and 47-49 depend from allowable amended base Claims 1, 13, 26, and 38, respectively, and are allowable for the same reasons. Applicant respectfully requests the withdraw of the rejections of Claims 9-11, 22-24, 34-36 and 47-49 under 35 U.S.C. § 103.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,
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Dated: 12/23/05